Abstract

Method and device for digital filtering of interpolated values

In the digital filtering of an input signal (3), which has been produced by interpolation of a pilot signal (2), under certain circumstances numerous values originating from the past have to be stored. In order to reduce the storage space required for these and the associated power consumption, the values of the input signal (3), which are needed for computation of the values of an output signal (4), are compressed and stored in compressed form. More particularly here the values of the input signal (3) are divided into symbol periods, in which a coherent range of memory values, which are the only data-carrying values in the symbol period, occurs in each case. These values are stored together with the length of the symbol period, so that although each symbol period can be described completely, storage space is reduced. The values to be stored can be seamlessly stored in a FIFO memory, whereby an address is determined as a function of the length of the symbol periods, under which the desired value can be accessed in the FIFO memory. If the computing specifications of the digital filter require that a non-data carrying value, which is not stored in the FIFO memory has to be accessed, this value is reconstructed, and in particular the data-carrying value immediately preceding in the time sequence and therefore having been input in the FIFO memory, is used.

(Fig. 5)